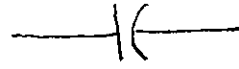


Energy storage elements

Inductors and Capacitors



a coil of wire



parallel plates
with an insulator
between

short for DC

open for DC

$$V = L \frac{di}{dt}$$

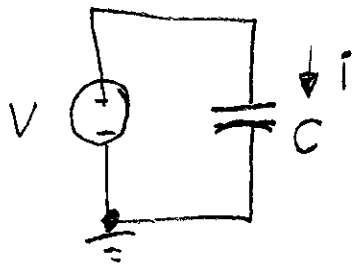
$$i = C \frac{dV}{dt}$$

$$i(t) = \frac{1}{L} \int_{t_0}^t v d\tau + i(t_0)$$

$$v(t) = \frac{1}{C} \int_{t_0}^t i d\tau + v(t_0)$$

Example:

5C
②



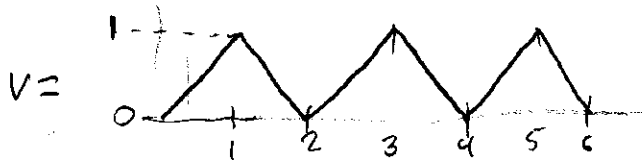
$$i = C \frac{dv}{dt}$$

$V = 10V, DC$

$i =$



$i =$



$i =$



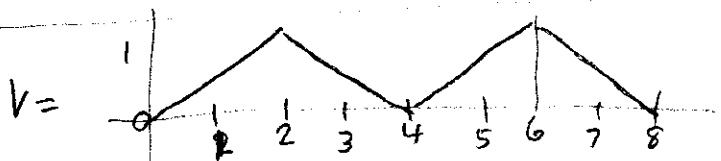
$i =$



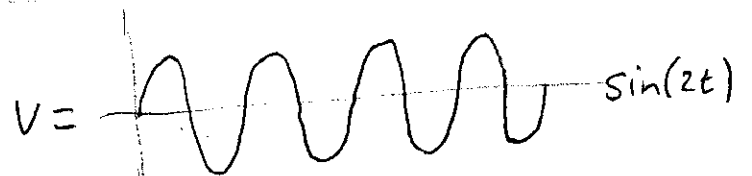
$i =$

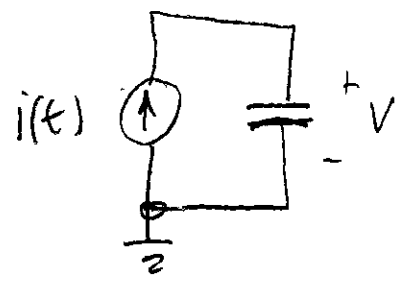


$i =$



$i =$





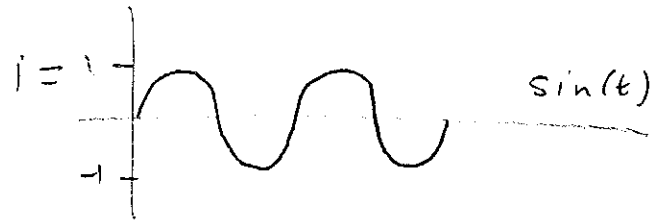
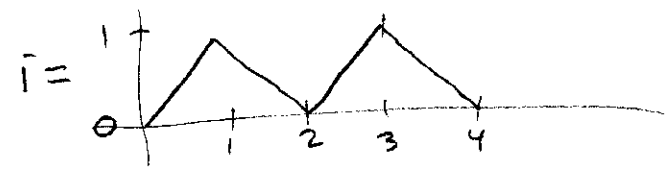
$$V(t) = \frac{1}{C} \int_{t_0}^t i \, d\tau + V(t_0)$$

$i = 1 \text{ A DC}$



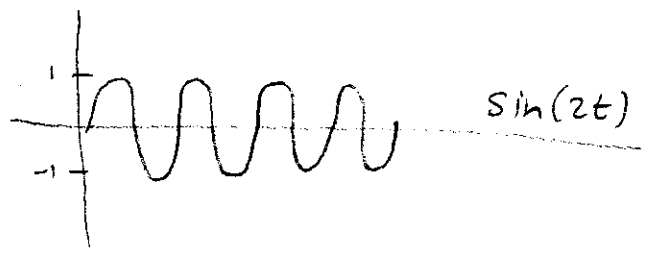
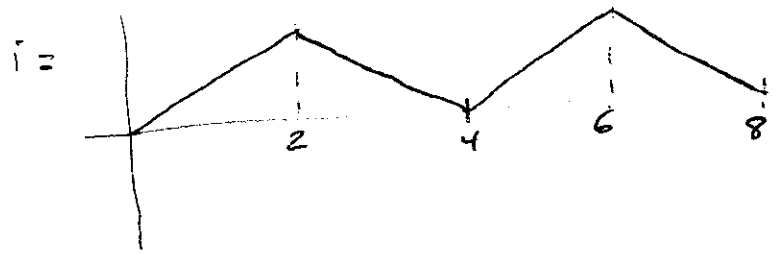
$V =$

$V =$



$V =$

$V =$



$V =$

$V =$